

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 18773-WO-05		FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/IL2005/000385	International filing date (day/month/year) 11/04/2005	(Earliest) Priority Date (day/month/year) 26/08/2004	
Applicant E.S.T. ECOLOGICAL SYSTEMS LTD.			

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of **6** sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. Certain claims were found unsearchable (See Box II).

3. Unity of invention is lacking (see Box III).

4. With regard to the title,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

5. With regard to the abstract,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

- a. The figure of the drawings to be published with the abstract is Figure No. **1**

as suggested by the applicant.

as selected by this Authority, because the applicant failed to suggest a figure.

as selected by this Authority, because this figure better characterizes the invention.

- b. none of the figures is to be published with the abstract.

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Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

The invention is a system and method for neutralizing fluid chemical waste products that result from a chemical production process and are collected from the production line. The invention comprises a pyrolysis/reaction chamber (200) into which the fluid chemical waste is pumped (140) through an atomizer (160). The jet of small droplets of liquid waste that is formed by the atomizer (160) effectively contacts the plasma stream created by a plasma torch (220). When the droplets contact the plasma stream the molecules of the waste from which the droplets are composed are dissociated into atoms and/or ions. These atoms and ions move out of the immediate region of the plasma stream and recombine to form a mixture of product gases which exits the chamber. The product gases then enter a post-pyrolysis subsystem (300), which is designed to neutralize and/or collect the components comprising the mixture of product gases.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B01J19/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A62D B01J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 644 877 A (BARTON ET AL) 24 February 1987 (1987-02-24) cited in the application abstract; figures column 6, line 45 - line 49 column 7, line 11 - line 19 column 7, line 47 - line 57	1,3,5-8, 15,16, 19,21-26
X	WO 03/066197 A (TBI CO., LTD; KIM, SIN, DO; KIM, JONG, HO; YOO, AE, KWON) 14 August 2003 (2003-08-14) abstract; figures page 11, line 7 - page 12	1,21
A	US 5 484 978 A (HEDBERG ET AL) 16 January 1996 (1996-01-16) abstract; figures column 3, line 10 - line 15	1-26
		-/-

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

T later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

V document of particular relevance; the claimed invention cannot be considered novel or can only be considered to involve an inventive step when the document is taken alone

W document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

U document member of the same patent family

Date of the actual completion of the international search

21 July 2005

Date of mailing of the international search report

27/07/2005

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International Application No PCT/IL2005/000385

C(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 3 708 409 A (BAINBRIDGE R,CA) 2 January 1973 (1973-01-02) abstract; figures column 4, line 24 - line 35 _____	1-26
A	US 4 909 164 A (SHOHET ET AL) 20 March 1990 (1990-03-20) abstract; figures column 4, line 16 - line 22 _____	1-26
A	US 5 935 293 A (DETERING ET AL) 10 August 1999 (1999-08-10) abstract; figures column 6, line 57 - line 65 column 7, line 37 - line 43 column 8, line 9 - line 14 column 8, line 18 - line 21 _____	1-26
A	US 2004/043721 A1 (IMAFUKU KOSUKE ET AL) 4 March 2004 (2004-03-04) abstract; figures paragraph '0008! paragraph '0012! paragraphs '0059!, '0060! _____	1-26
A	US 6 372 156 B1 (KONG PETER C ET AL) 16 April 2002 (2002-04-16) abstract; figures column 2, line 37 - line 54 _____	1-26

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IL2005/000385

Patent document cited in search report	Publication date	Patent family member(s)		Publication date	
US 4644877	A 24-02-1987	CA 1225441 A1 AT 387029 B AT 256884 A AU 550264 B2 AU 2996884 A BE 901549 A2 BR 8403572 A CH 663998 A5 DE 3424710 A1 DK 329584 A ,B, ES 8506882 A1 FI 842568 A ,B, FR 2558571 A1 GB 2152949 A ,B IL 72303 A IN 161702 A1 IT 1196234 B JP 1680948 C JP 3044791 B JP 60154200 A KR 8901627 B1 MX 168327 B NL 8402438 A NO 842476 A ,B, NZ 208823 A SE 462505 B SE 8403445 A ZA 8405115 A			11-08-1987 25-11-1988 15-04-1988 13-03-1986 01-08-1985 23-07-1985 03-12-1985 29-01-1988 01-08-1985 24-07-1985 16-11-1985 24-07-1985 26-07-1985 14-08-1985 09-02-1990 16-01-1988 16-11-1988 31-07-1992 09-07-1991 13-08-1985 11-05-1989 18-05-1993 16-08-1985 24-07-1985 06-03-1987 02-07-1990 24-07-1985 25-09-1985
WO 03066197	A 14-08-2003	KR 2003067241 A AU 2002307695 A1 JP 2003251146 A WO 03066197 A1		14-08-2003 02-09-2003 09-09-2003 14-08-2003	
US 5484978	A 16-01-1996	NONE			
US 3708409	A 02-01-1973	NONE			
US 4909164	A 20-03-1990	AT 77566 T DE 68901926 D1 DE 68901926 T2 EP 0412107 A1 JP 3500257 T WO 8910162 A1 CA 1337691 C		15-07-1992 30-07-1992 24-12-1992 13-02-1991 24-01-1991 02-11-1989 05-12-1995	
US 5935293	A 10-08-1999	US 5749937 A CA 2408994 A1 US 6187226 B1 US 2003021746 A1 US 2004208805 A1 AU 694024 B2 AU 5423596 A BR 9607210 A CA 2215324 A1 CN 1182456 A ,C EP 0815271 A1 JP 11502760 T		12-05-1998 21-04-2004 13-02-2001 30-01-2003 21-10-2004 09-07-1998 02-10-1996 11-11-1997 19-09-1996 20-05-1998 07-01-1998 09-03-1999	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IL2005/000385

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5935293	A	NO 974225 A WO 9628577 A1 US RE37853 E1	04-11-1997 19-09-1996 24-09-2002
US 2004043721	A1 04-03-2004	WO 0249755 A1	27-06-2002
US 6372156	B1 16-04-2002	NONE	